



**UNITED
TECHNOLOGIES
PRATT & WHITNEY**

400 Main Street
East Hartford, Connecticut 06108

October 18, 1991

Ms. Lynn M. Clune
Engineer
Waste Engineering and Enforcement Division
Department of Environmental Protection
165 Capitol Avenue
Hartford, CT 06106

RCRA RECORDS CENTER
FACILITY *Pratt & Whitney*
I.D. NO. *OTD99067-0081*
FILE LOC. *R-112*
OTHER *RDMS #2312*

| |
|-----------------------------|
| RECEIVE |
| OCT 25 91 |
| CT WASTE REGULATION SECTION |

Re: RCRA Part B Application - NFPA Validation

RCRA RECORDS CENTER

Dear Ms. Clune:

We are transmitting to you one copy of the NFPA validation for the storage and handling of ignitable waste in the proposed Centralized Waste Storage and Transfer Facility. The validation was performed by Foehl Sherman, Inc. of Burlington, MA.

As stated in his letter Foehl Sherman's review was based in part on a set of Contract 3 drawings which have not yet been finalized. Consequently their code validation is interim, and are subject to finalization of Contract 3. Once the Contract is finalized, which we expect to occur in 3 to 4 weeks, Foehl Sherman will finalize their code validation.

Two exceptions to full compliance with NFPA codes have been noted by Foehl Sherman, Inc. The first exception pertains to providing containment from the storage tanks in the west half of the building. NFPA would prefer to see spilled liquids drained away from the tanks outside of the building. However for compliance with RCRA, we need to provide secondary containment for spilled liquids.

The second exception pertains to requirements with regard to tank vehicle loading and unloading facilities. Again, NFPA would prefer to have these operations take place outside of the building but for RCRA compliance, we would prefer to locate these activities inside in an area where spills can be contained.

Although these areas are not in strict compliance with NFPA, we believe that the environmental requirements should be given priority and that adequate protections have been incorporated into the design of the facility, such as automatic sprinklers, to render it safe.

Thank you for your cooperation and assistance. If you have any questions concerning this response, please contact Bryan Kielbania at 565-0903.

Sincerely,

R. C. Weiss
Director, Facilities & Services

RCW/BFK/ljs

b-b1n

FOEHL SHERMAN Inc.

Consulting Fire Engineers

October 17, 1991
Project: 0048

Pratt & Whitney
400 Main Street
East Hartford, CT 06108

Attention: Bryan F. Kielbania, Sr. Facilities Engineer

Subject: Centralized Waste Storage and Transfer Facility
NFPA Regulations Certification

Dear Mr. Kielbania:

As requested, we have reviewed the design documents for the captioned project with regard to compliance with National Fire Protection Association regulations. We have identified NFPA codes and standards which are involved with the storage of ignitable wastes; a list is attached here as Appendix A. A list of documents which were reviewed by us is attached here as Appendix B.

As portions of the documents provided to us were progress prints, this validation is, of necessity, interim in nature. Most issues which were identified will be reflected in the final project documents according to Loureiro Engineering Associates.


We find that the design documents appear to be substantially in compliance with the NFPA codes and standards listed in Appendix A except for the following items:

1. Provisions for drainage of liquid spills.
2. Fire separations and other requirements with regard to tank vehicle loading and unloading facilities.

We will finalize our review upon completion of the final project documents.

Yours truly:

Foehl Sherman Inc.



Philip R. Sherman, P.E.
Vice President

APPENDIX A

DOCUMENTS REVIEWED

Our review was based, and is limited to, the following documents which have been provided to us:

Specifications:

| | | |
|-------------------------------------|------------|---------|
| Site Work and Building Construction | Contract 2 | 5/17/91 |
| Mechanical and Electrical | Contract 2 | 5/17/91 |
| Draft specification | Contract 3 | 10/2/91 |

Drawings:

| | | | |
|-------|---|------------|---------|
| D-3-1 | Part B Permit Application | | |
| | Process Piping Schematic Tanks 1 - 16 | | 9/5/91 |
| D-3-2 | Part B Permit Application | | |
| | Process Piping Schematic CWTP & Details | | 9/5/91 |
| L-2 | Site and Location Plans | Contract 2 | 5/17/91 |
| L-3 | Site Development Plan | Contract 2 | 5/17/91 |
| L-4 | Utility Plan | Contract 2 | 5/17/91 |
| L-5 | Electrical Plan and Misc Details | Contract 2 | 5/17/91 |
| L-6 | Exterior Pipe Rack | Contract 3 | 7/25/91 |
| A-1 | Floor Plan and Code Information | Contract 2 | 5/17/91 |
| A-2 | Roof Plan and Details | Contract 2 | 5/17/91 |
| A-3 | Exterior Elevations | Contract 2 | 5/17/91 |
| A-4 | Bldg Sec, Finish Schd, Details | Contract 2 | 5/17/91 |
| A-5 | Wall Sections | Contract 2 | 5/17/91 |
| A-6 | Plan Details | Contract 2 | 5/17/91 |
| A-7 | Int Elev, Doors Schd, Details | Contract 2 | 5/17/91 |
| S-1 | Foundation Plan | Contract 2 | 5/17/91 |
| S-2 | Roof Framing Plan | Contract 2 | 5/17/91 |
| S-3 | Column Schedule | Contract 2 | 5/17/91 |
| S-4 | Foundation Details | Contract 2 | 5/17/91 |
| S-5 | Foundation Details | Contract 2 | 5/17/91 |
| S-6 | Structural Details | Contract 2 | 5/17/91 |
| S-9 | Containment Stair Details | Contract 3 | 10/1/91 |
| S-10 | Mezzanine Framing Plan | Contract 3 | 10/1/91 |
| S-11 | Structural Details | Contract 3 | 10/1/91 |
| S-12 | Pipe Rack Framing Plan | Contract 3 | 10/1/91 |
| S-13 | Structural Details | Contract 3 | 10/1/91 |
| M-1 | Plumbing and Mechanical Room | | |
| | Plan and Details | Contract 2 | 5/17/91 |
| M-2 | Plumbing and Fire Prot Plan | Contract 2 | 5/17/91 |
| M-3 | Plan - HVAC | Contract 2 | 5/17/91 |
| M-4 | HVAC Details | Contract 2 | 5/17/91 |
| M-5 | Sections and Details | Contract 2 | 5/17/91 |
| M-6 | Process Piping Sch Tanks 1-16 | Contract 3 | 9/17/91 |
| M-7 | Process Piping Sch, CWTP & Det | Contract 3 | 9/17/91 |

| | | | |
|------|---|------------|---------|
| M-8 | Piping Mech Rm and North Area | Contract 3 | 9/26/91 |
| M-9 | Process Piping Plans Tanks 1-5 | Contract 3 | 9/17/91 |
| M-10 | Process Piping Sections & Details Tanks 1-5 | Contract 3 | 9/17/91 |
| M-11 | Process Piping Plans Tanks 6-9 | Contract 3 | 9/17/91 |
| M-12 | Process Piping Sections & Details Tanks 6-9 | Contract 3 | 9/17/91 |
| M-13 | Process Piping Plans Tanks 10-13 | Contract 3 | 9/24/91 |
| M-14 | Process Piping Sections & Details Tanks 10-13 | Contract 3 | 9/26/91 |
| M-15 | Process Piping Plans Tanks 14-16 | Contract 3 | 9/25/91 |
| M-16 | Process Piping Sections & Details Tanks 14-16 | Contract 3 | 9/25/91 |
| M-17 | Process Piping Exterior Pipe Rack | Contract 3 | 10/1/91 |
| M-18 | Process Piping Existing Concentrated Waste Treatment Plant | Contract 3 | 9/25/91 |
| M-19 | Process Ventilation Schematic Tanks 1-9 | Contract 3 | 9/18/91 |
| M-20 | Process Ventilation Schematic Tanks 10-16 | Contract 3 | 9/18/91 |
| M-21 | Process Ventilation Make-up Air Heaters and Intake Details | Contract 3 | 9/19/91 |
| M-22 | Process Ventilation and Suction Tanks 1-5 | Contract 3 | 9/19/91 |
| M-23 | Process Ventilation Tanks 1-5 | Contract 3 | 9/19/91 |
| M-24 | Process Ventilation Plan Tanks 6-9 | Contract 3 | 9/20/91 |
| M-25 | Process Ventilation Section Tanks 6-9 | Contract 3 | 9/20/91 |
| M-26 | Process Ventilation Plan Tanks 10-13 | Contract 3 | 9/27/91 |
| M-27 | Process Ventilation Section Tanks 10-13 | Contract 3 | 9/27/91 |
| I-1 | P & I Diagram Tank 1 | Contract 3 | 9/9/91 |
| I-2 | P & I Diagram Tank 2 | Contract 3 | 9/10/91 |
| I-3 | P & I Diagram Tank 3 | Contract 3 | 9/10/91 |
| I-4 | P & I Diagram Tank 4 | Contract 3 | 9/18/91 |
| I-5 | P & I Diagram Tank 5 | Contract 3 | 9/11/91 |
| I-6 | P & I Diagram Tank 6 | Contract 3 | 9/10/91 |
| I-7 | P & I Diagram Tank 7 | Contract 3 | 9/18/91 |
| I-8 | P & I Diagram Tank 8 | Contract 3 | 9/18/91 |
| I-9 | P & I Diagram Tank 9 | Contract 3 | 9/18/91 |
| I-10 | P & I Diagram Tank 10 | Contract 3 | 9/18/91 |
| I-11 | P & I Diagram Tank 11 | Contract 3 | 9/18/91 |
| I-12 | P & I Diagram Tank 12 | Contract 3 | 9/19/91 |
| I-13 | P & I Diagram Tank 13 | Contract 3 | 9/19/91 |
| I-14 | P & I Diagram Tank 14 | Contract 3 | 9/18/91 |
| I-15 | P & I Diagram Tank 15 | Contract 3 | 9/18/91 |
| I-16 | P & I Diagram Tank 16 | Contract 3 | 9/18/91 |
| I-17 | P & I Diagram Pumps C,D,E | Contract 3 | 10/1/91 |
| I-22 | Facility Computer System Layout | Contract 3 | 9/17/91 |

| | | | |
|------|---|------------|---------|
| E-1 | Power Plan | Contract 2 | 5/17/91 |
| E-2 | Lighting and Receptacle Plan | Contract 2 | 5/17/91 |
| E-3 | Electrical Details | Contract 2 | 5/17/91 |
| E-4 | Auxiliary Systems | Contract 2 | 5/17/91 |
| E-5 | One Line Diagrams and Details | Contract 2 | 5/17/91 |
| E-6 | Process Power System Details | Contract 3 | 8/5/91 |
| E-8 | Wiring Diagrams | Contract 2 | 5/17/91 |
| E-9 | Instrumentation and Control Wiring Tanks 1-9 | Contract 3 | 10/1/91 |
| E-10 | Instrumentation and Control Wiring Tanks 10-16 | Contract 3 | 10/2/91 |

APPENDIX B

Applicable Codes and Standards:

As the scope of the review, as determined by the Department of Environmental Protection, is somewhat open ended, we have identified the NFPA codes and standards which appear to apply to this project. These are as follows:

| | |
|----------------|--|
| NFPA 1-1987 | Fire Prevention Code |
| NFPA 10-1988 | Portable Extinguishers |
| NFPA 11-1988 | Foam Extinguishing Systems |
| NFPA 13-1989 | Sprinkler Systems |
| NFPA 16-1986 | Deluge Foam-Water Systems |
| NFPA 16A-1988 | Closed Head Foam-Water Sprinkler Systems |
| NFPA 20-1990 | Centrifugal Fire Pumps |
| NFPA 24-1987 | Private Fire Service Mains |
| NFPA 26-1988 | Supervision of Water Supply Valves |
| NFPA 30-1987 | Flammable and Combustible Liquids Code |
| NFPA 70-1990 | National Electrical Code |
| NFPA 72-1991 | Protective Signaling Systems |
| NFPA 72E-1987 | Automatic Fire Detectors |
| NFPA 72G-1989 | Notification Appliances for Protective Signaling Systems |
| NFPA 77-1988 | Static Electricity |
| NFPA 80-1990 | Fire Doors and Windows |
| NFPA 80A-1987 | Protection of Buildings from Exterior Fire Exposures |
| NFPA 90A-1989 | Air Conditioning Systems |
| NFPA 91-1990 | Blower and Exhaust Systems |
| NFPA 231-1987 | General Storage |
| NFPA 251-1985 | Fire Tests of Building Construction and Materials |
| NFPA 252-1984 | Fire Tests of Door Assemblies |
| NFPA 255-1984 | Burning Characteristics of Building Materials |
| NFPA 256-1987 | Tests of Roof Coverings |
| NFPA 258-1989 | Tests to Determine Smoke Generation of Solid Materials |
| NFPA 497A-1986 | Electrical Installations, Classification of Class I Hazardous Locations. |
| NFPA 1961-1987 | Fire Hose |